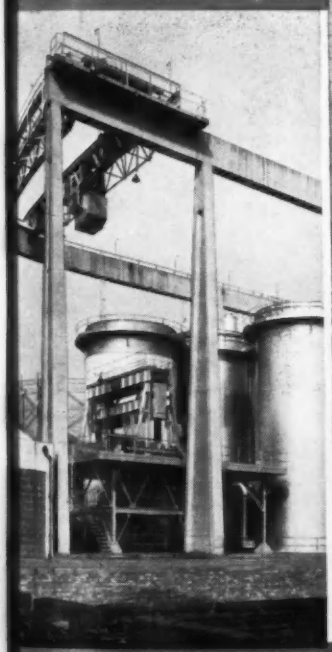
Gas Journal

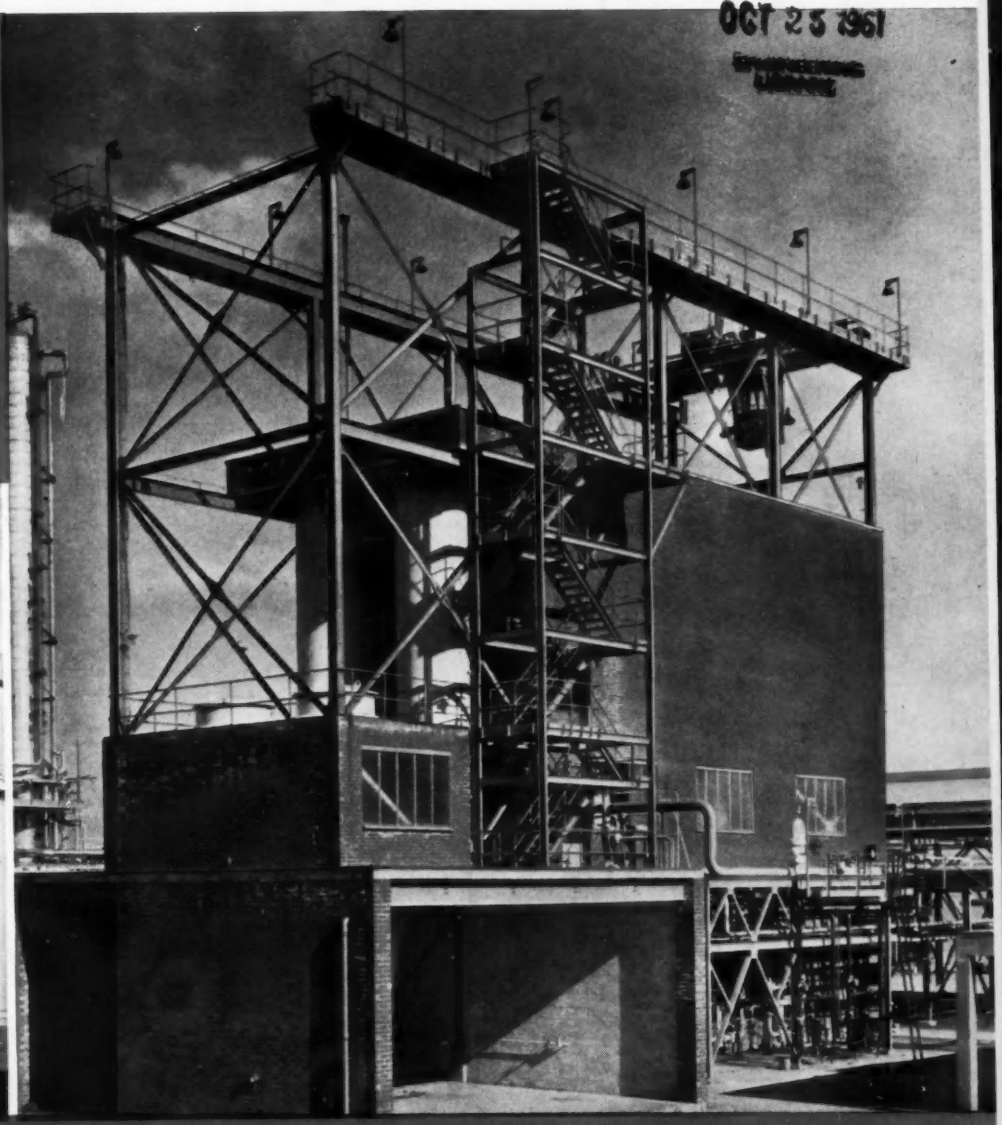
VOL. 307 113th YEAR LONDON, SEPTEMBER 27, 1961 No. 5117 PRICE 1/6

OCT 23 1961

The Westfield (Scottish Gas Board) High Pressure Purification Plant.

Tower Purifiers with Mechanical Oxide Discharger, at the Sunderland Works of the Northern Gas Board, capacity 10 million cu. ft. per day





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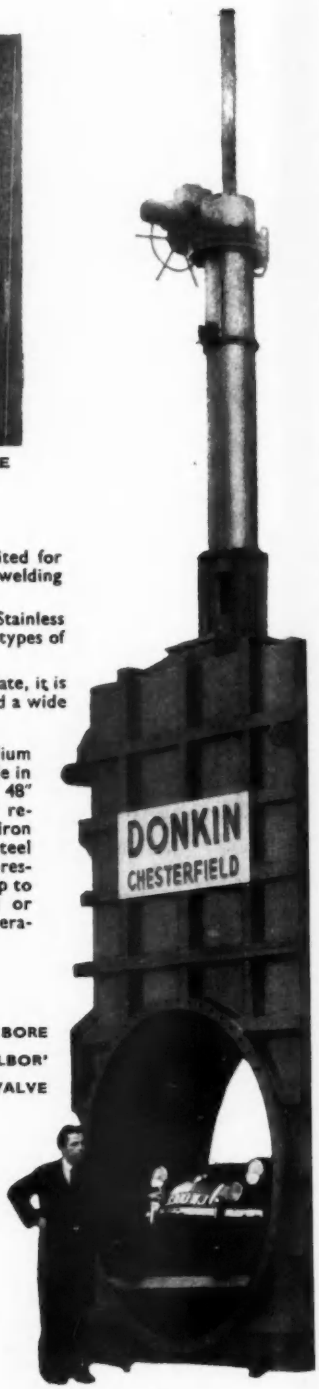

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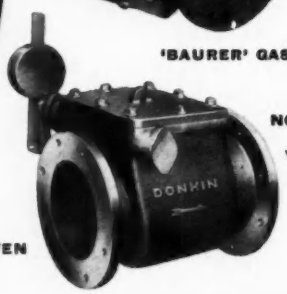

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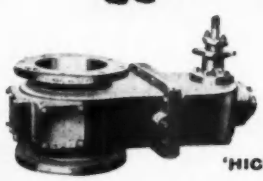

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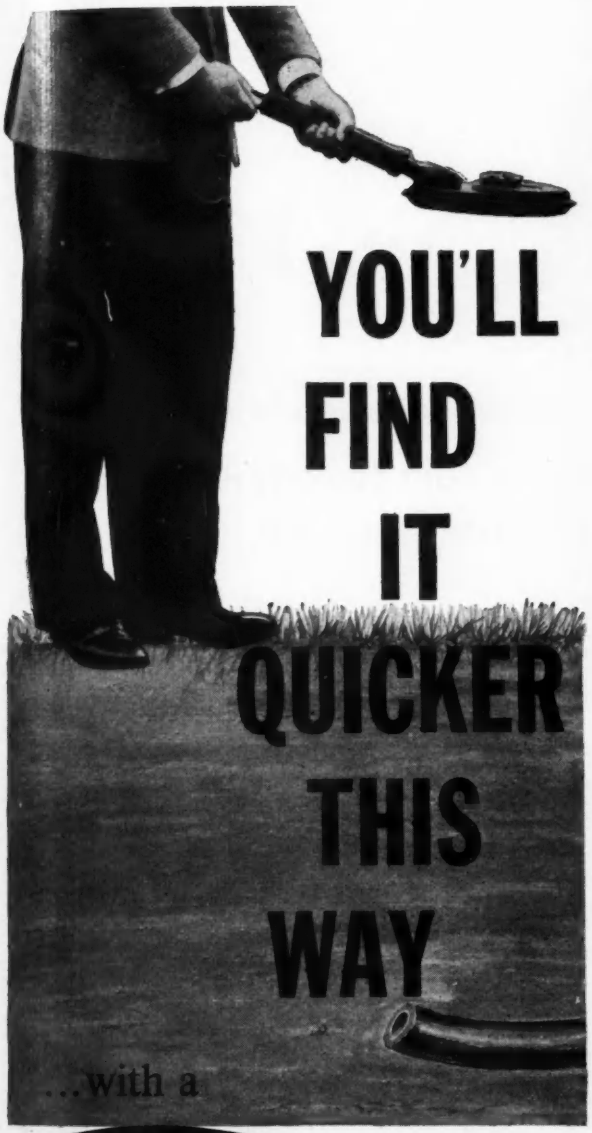

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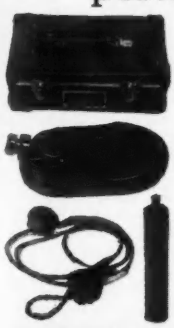

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Gas Journal

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WEDNESDAY, SEPTEMBER 27, 1961

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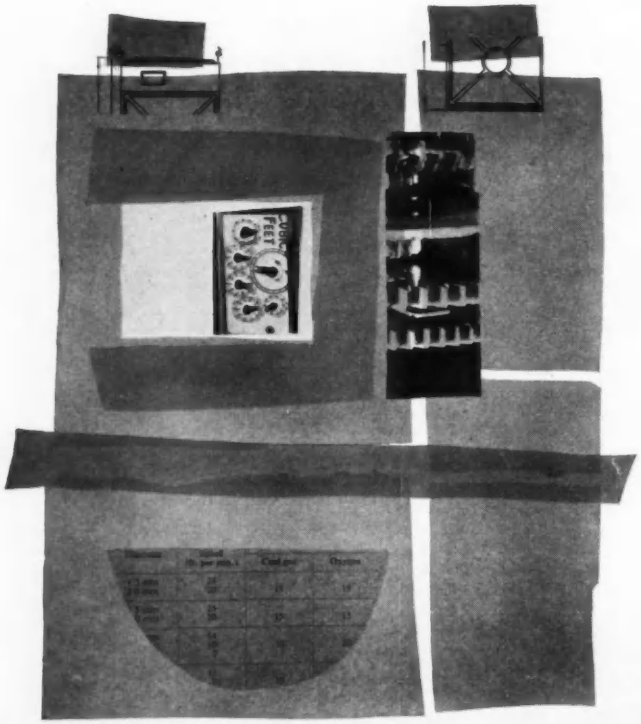

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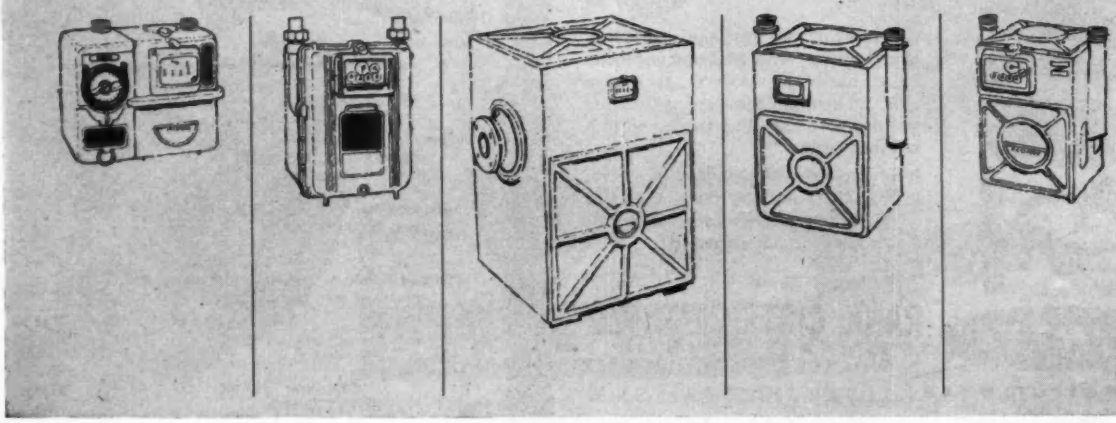

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Gas Journal

COKE OVENS • BY-PRODUCTS • CHEMICALS

An historic Scottish meeting

WE have said farewell to the Scottish Association of Gas Managers which for a hundred years has given distinguished service to the Scottish gas industry. The most recent of those years have not been particularly easy, and in the circumstances it is both logical and desirable that the Association should move beneath the protective umbrella of the Institution of Gas Engineers, becoming its Scottish Section. This not only gives it certain advantages, but serves to tidy up the composition of the I.G.E. Even so it appears to us that the Scottish Section may continue to have certain problems not experienced by other Sections. It exists within the confines of one area board, and while its activities must inevitably be closely associated with the furtherance of gas in Scotland, care must be taken that its meetings should not in any sense become an extension of Board conferences. At the same time it must be said that speeches such as that made by the Board Chairman, Mr. Sydney Smith, at the Centenary Meeting of the Association in Edinburgh on September 14, have a particular relevance, being virtually a blueprint for Scottish gas.

This meeting, the last of the Association's long history, was a memorable one, and the presence of Sir Henry Jones, the Chairman of the Gas Council, Mr. T. C. Battersby, the President of the I.G.E., and many other notabilities contributed to the importance of the occasion. The programme too had a certain significance, with the William Young Memorial Lecture supplying a link with the past, and the paper 'An Eye to the Future', an appropriate choice of title by the author, Mr. M. R. Bone.

This year the William Young lecture was in the hands of Dr. James Burns, the Deputy Chairman of the North Thames Board. He chose to make his address very historic in character, stressing the wonder with which that great pioneer might view the industry today. Perhaps Dr. Burns felt the importance of the occasion demanded that particular stress be laid on past achievements, but it could equally well be argued that this lecture is really only a platform and that at this turning point in the affairs of the gas engineering fraternity in Scotland something a little more forward-looking might be appropriate. In his Presidential Address to the I.G.E., and on other occasions too, Dr. Burns has shown himself to be an authoritative and imaginative speaker on the future of the industry; we would have liked to see him demonstrate this ability again at Edinburgh.

We have referred above to the paper by Mr. Bone. What we have not stated is the fact that he is Statistician to the South Eastern Gas Board and was clearly invited to Scotland on the recommendation of someone familiar with his work. Never was a recommendation founded on firmer fact. This is, in our view, a splendid paper and extremely timely, emphasising as it does the absolute necessity of ensuring that a larger proportion of consumers use some gas appliance in addition to the cooker. He explores the possibilities of discounts related to the total price whenever two or more appliances are sold in one transaction, of inducements lasting for a fixed period of perhaps 12 months or two years from the date when a cooker is sold, and of offering room heaters on hire to consumers on a two-part tariff. These and many other points deserve careful study. The paper and a report of the discussion will be published shortly.

The selection of President of the Scottish Association for this centenary year is naturally a matter of some importance, and there can be little doubt that in Mr. David Beavis, Area Manager of the Scottish Gas Board, a wise choice was made. Indeed, his Presidential Address may well prove to be one of the most discussed addresses of the year, dealing as it did with one of the most urgent but least publicised problems facing the industry. In the remainder of the space at our disposal we would like to comment on his views on education, not only of the technician and the engineer, but also of the potential candidate for higher management.

We have felt for some time that the gas industry either was unable to, or did not want to, encourage the most able young men graduating from the universities to

interest themselves in this, one of the country's major industries. As to why this should be, there seem to be at least three reasons.

First and foremost, the industry has failed to offer salaries attractive to these young men and to provide a suitable organisation in which they would be able to work their way up to the top-most managerial positions. Secondly, the future of the industry might be uncertain —a very understandable point of view for someone dispassionately considering an industry's future expansion, and therefore his own prospects. Thirdly, we think that there is a tendency among existing personnel, especially the older hands, to hold ultra-conservative views against a change in the method of recruiting and training new entrants.

Change in outlook

As Mr. Beavis points out, the status of the British gas industry has undergone the most profound changes since nationalisation. Its whole outlook has altered, certainly technically, but have those in the top positions changed enough in their outlook to realise that only the most able are really good enough to guide into a prosperous future, an industry of this size, a nationally important industry which has the whole population as its potential customers and ever-increasing prospects for large sales of gas to industry?

To encourage this type of entrant, a salary at least as good, if not better than, manufacturing industry is clearly essential, but a proper organisation into which the management trainees would enter is scarcely less necessary.

Mr. Beavis makes the point that anyone who can qualify for one of the highest management posts in early middle life and hold it down for 20 to 25 years without considerable mental and physical strain, must have undergone a proper training in the taking of responsibility and the making of decisions of increasing importance, progressively from the time he enters the industry.

Can the industry provide a framework in which this kind of outlook can be acquired? It does seem to be more than a little doubtful, and we are quite convinced that a very subordinate post as a junior engineer at even the largest gasworks, or a similar accountancy job for an indefinite time, is unlikely to satisfy an ambitious young man of proven ability.

Under the present set-up this difficulty may be overcome by the system of moving round from one district to another, or from one board to another, by applying for posts as they become vacant. It does, however, make for spasmodic movement and domestic upheavals, and unless there is a very fair increase in salary at each move, financially the move might not be worthwhile.

All-round training

If some organised system of all-round training lasting a definite number of years could be initiated in the industry, after which a job and salary commensurate with a young man's ability could be offered, the young man now fully trained in the industry's ways and fully cognisant of its processes and problems would become part of a group of potential managers from which future selections for the most important posts would be made.

Such a change in outlook in selecting those to be groomed for stardom should not have too great effect on existing training schemes, but could be superimposed on them.

Those being put through sandwich courses, day-release schemes or craft training, are likely to reach the limit of their potential abilities in the less senior works jobs; besides, the training of foremen, inspectors and such like personnel is being undertaken by the board's present schemes.

With the spread of secondary education and the increased numbers of the cream of the country's youth going to the universities and technical colleges, Mr. Beavis is strongly of the opinion that those seeking professional status should qualify by this means and no other. He is certain that there would be no lack of applicants as a consequence.

So much then for the ways and means of attracting the country's best brains to our industry. What justification is there for doing so at all? Without it the industry can never be self-supporting in finding applicants for its most important posts; neither will the prestige of the industry be enhanced without this vital source of ability. If those to fill the top-most management posts have to be sought outside the industry, it may well be that the best will not come forward to fill them.

GAS SALES AND SERVICE CONFERENCE

Once again *Gas Service* has been entrusted with the task of producing an official record of the Gas Sales and Service Conference, to be held at Harrogate from November 6 to 9. This year, although the number of delegates has been reduced, the programme is likely to be the most important in the industry's history.

The value of such a conference is dependent upon the widest possible circulation of the views expressed there, and with this in mind *Gas Service* is undertaking the fullest possible report of the event.

Since this could not be undertaken within the confines of an ordinary issue, we are producing an entirely separate number, to be published towards the end of November. It will contain papers, full reports of discussions and wide picture coverage.

The price will be 3s. including postage. Completion of the coupon below will ensure that you receive a personal copy. Please send to **Walter King Ltd., 11, Bolt Court, Fleet Street, London, E.C.4.**

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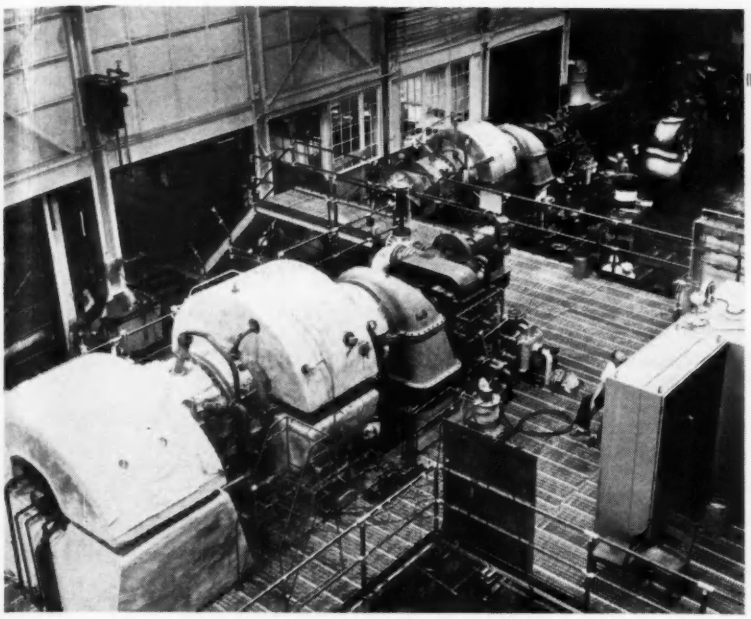


A gas turbine for Trans-Canada Pipelines on test.

Packaged Canadian gas turbines

By Hugh G. Jarman.

WITH the laying of the Trans-Canada pipelines, and plans already developed in which the capacity of the present lines are to be increased—and the laying of still another pipeline in the near future—there has developed a demand for packaged turbine power units.

At the request of the Trans-Canada Pipelines Ltd., and with the promise of orders at competitive prices, the Canadian Westinghouse Company, together with the Atlas Steel Corporation, has designed and constructed the first packaged gas turbine unit ever to be built in Canada.

Similar in some respects to other turbines, and costing slightly over $1 mill., this gas turbine attains rotational speeds close on 5,850 r.p.m. and turbine temperatures as high as 1,450°F.

Three of these turbines have already been constructed, tested and installed on the western section of the pipeline by the Westinghouse Company, where they drive compressors to increase the gas pressure, and so expedite the delivery of natural gas from the wells to the consumer.

Super alloys

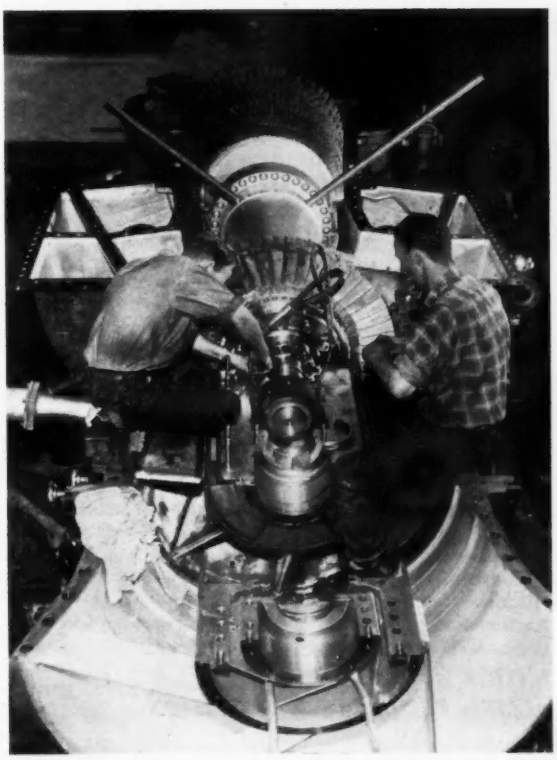
Atlas-produced Westinghouse super alloys, and nickel-based alloys, as well as SAE-4340 steels, were used for the turbine discs throughout the new units, on many component parts where close tolerances and high structural strength must be maintained and at those points where wear and abuses are caused by extreme heat and high speeds.

These steels, made to special analysis for turbine specifications and long tested and proved in the gas turbine field, were supplied in forged and rough turned shapes for final precision machining by the Westinghouse technicians.

The future potential range of gas turbines by Canadian Westinghouse is broad; they provide power from as low as 75 h.p. and up to 35,000 h.p., and their designs are based upon the use of a variety of liquid and gaseous fuels.

These power plants are lighter and more compact than any others made to date by competitive companies outside

Workmen assemble one of three Canadian Westinghouse gas turbines manufactured in 1960 for use in natural gas transmission.



Canada. Their versatility fits them for a wide variety of demanding applications including fluids, gas, and air pumping for mines, for marine, aviation and surface vehicular propulsion, and heavy duty off-road hauling such as railways.

Suitable for central station and utility purposes, for peak load and base load power, and industrial applications—in steel mills—they may be remotely controlled or directly manned, and offer significant operating, portability, installation and maintenance economies over steam turbines, gasoline and diesel engines.

The gas turbine can be operated on location with very little or no human control other than conventional supervision and alarm system devices used in the event of malfunction.

Permanent installation presents no particular construction problems, since complete lack of vibration permits location in almost any type of housing.

This new Canadian industry should have a tremendous future with the natural growth of the country; its constant exploration for mines, going up even into the Arctic regions, and its developments of all kinds of minerals, gas, oil and petroleum products.

BOOK REVIEW

BENZOLE PRODUCTION AND USES

Edited by G. Claxton

THIS book is the successor to 'Motor Benzole—Its Production and Use', by the late W. H. Hoffert and G. Claxton, the second edition of which was published in 1938. All the advances in the technology of benzole production and its uses within the last 20 years had shown that a third edition was long overdue, but so great had these developments been that it was quite clear that a completely new book would have to be written. The present volume is the result.

Perhaps the greatest change in the outlook of the benzole industry is that the use of benzole for motor spirit has become of secondary importance and has been superseded by its use as a basic raw material for chemical synthesis; perhaps it might be said to be a return to the original use of gasworks produced crude benzole.

This in itself has probably done more than anything to change the aim of benzole refining and, as it will be seen, the name of this most comprehensive text book.

First and foremost, the aim of the benzole producer must be to make available a material, the properties of which are within clearly and closely specified limits, as far as possible free from corrosive impurities. These demands will clearly have made necessary the development of more efficient and more economic processes and the design of the plant to exploit them.

The book under review is therefore comprehensive in the ground it covers and in this particular respect it should satisfy all those who are seeking a text book which is completely up-to-date and sufficiently detailed to slake the thirst for knowledge of the most demanding expert.

Consisting as it does of nearly 1,000 pages, after an interesting historical review, it covers the production, extraction and purification of benzole, its storage and handling as well as the necessary safety precautions to be taken.

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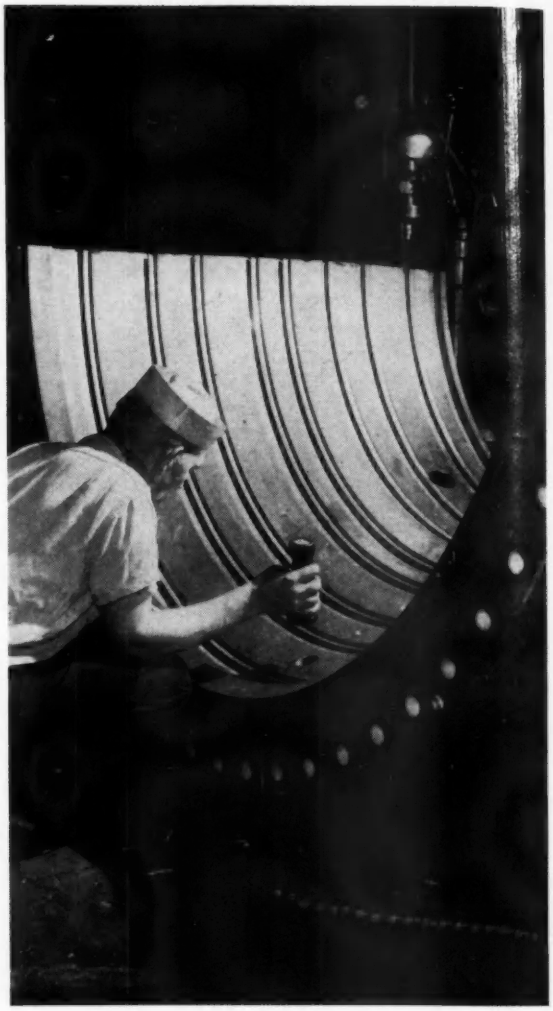

Compressor casing for gas turbine.

BOOK REVIEW

QUALITY ASSESSMENT OF PETROLEUM PRODUCTS

Edited by George Sell

A NEW book entitled 'Quality Assessment of Petroleum Products' has recently been published. It is intended to give information on the background and significance of test methods, and some guidance on their use in assessing the quality and performance characteristics of the products.

This book follows the publication in 1954 of one which had as its object the provision of some background on the influence of the properties of petroleum products on their performance and on the interpretation of the results of standard tests.

In preparing this new publication it was decided that the subject of the properties of petroleum products should be treated on the basis of products, rather than from the standpoint of the individual properties.

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Entrainment separation in gas processing

By Peter W. Sherwood, White Plains, New York.

ENTRAINMENT occurs wherever a gas is separated from a liquid. Depending on the physical properties of the system and the initial velocity of the gas stream, the amount of liquid particles carried by mechanical entrainment may range from negligible quantities to amounts which will interfere with adequate and economic operation of the process.

The problem of liquid entrainment occurs throughout the chemical processing industries, and numerous devices are on the market by which this phenomenon—or at least its adverse effects—may be minimised.

Entrainment separation may be a necessary measure in gas processing plants for any one or several of five reasons:

1. Entrained liquid may interfere with the efficiency—or indeed the operability—of a subsequent process.
2. Values contained in recovered liquid spray may add materially to the economics of the operation.
3. Elimination of liquid carry-over to a later process stage make lower maintenance requirements and minimise damage to equipment.
4. Removal of entrained liquids from effluent gas streams very often contributes significantly to the reduction of air pollution problems.
5. Where the entrained liquid is corrosive, its removal is essential before the process stream enters non-resistant materials of construction.

Special consideration

Each entrainment situation calls for a special engineering consideration, and the proper piece of equipment can only be selected after careful consideration of all the technical and economic factors involved. In gas processing practice, entrainment separating devices fall into six main categories, and the present discussion will follow this subdivision:

Centrifugal collectors.—This is the type of separator employed most commonly throughout the industry. It serves with good efficiency for the removal of particles down to a lower size limit of 5-10 micron diameter. Because of their low first cost and favourable operating characteristics, centrifugal separators are frequently used in conjunction with other clean-up devices.

Numerous designs in this category are on the market, but almost all follow the principle of the simple cyclone in which circular motion is imported to the fluid. The resulting centrifugal effect causes the heavier liquid particles to be thrown outward where they will drain downward after impingement on the side wall.

The most important factor determining separating efficiency in cyclones is the radius of curvature, *i.e.*, the smaller this distance, the greater the efficiency of removal. However, at the same time the pressure drop through the system is increased. To overcome this, multiple units must be employed. The selection of the system must be based on compromise between the factors of permissible efficiency, pressure drop, and investment cost.

Other factors which contribute to separating efficiency in centrifugal collectors include high linear gas velocity—also with resulting increase in pressure drop and increased vertical length of the cyclone.

Numerous aids to effective particle removal or low pressure drop are employed by different manufacturers. Special annular vanes may be provided to promote spiral motion of the gas. Buffing and guiding devices are employed to prevent re-retrainment of separated liquid, internal rotors—usually driven by the gas stream itself—are offered by at least two manufacturers with the avowed aim of boosting the centrifugal effect.

Large range of devices

Gravity settlers.—This covers a large range of devices ranging from a simple knockout pot to a horizontally baffled chamber in which liquid particles can settle on a multiple of horizontal surfaces after only a short vertical travel through the gas stream.

Units of this type are quite commonly home-made—although special designs are offered commercially. Their simplicity permits operation with only low maintenance. Operation is characterised by low pressure drop. However, relatively large settling areas are required for any given objective.

Since units of this type rely entirely on gravity for their separating effect, their scope is limited to the removal of particles exceeding an effective diameter of 50-100 microns. In many cases this limitation does not interfere with the demands of the process. Quite commonly, however, gravity settlers are used as crude clean-up units, preceding other, more effective devices.

Home-made and commercial

Impingement separators.—This category, once again, covers a large variety of designs—both home-made and commercial—many of which find wide application in the petroleum industries. The primary removal effect depends on the impingement of particles on a surface. In several instances, this is supplemented by a centrifugal effect which is achieved by compelling the gas stream to pass around the impingement obstruction in a rotary path.

Knitted wire-mesh entrainment separators have acquired increasing popularity in gas processing plants. This material, which is available from several manufacturers, and in a large variety of materials, combines the effects of

impingement with a scrubbing action by the coalesced liquid itself.

Material of this type offers not only a large impingement surface per unit volume—approximately 125 sq.ft. per cu.ft.—but is also characterised by high free volume (approximately 98%), which tends to result in relatively low pressure drop. Installation of this material into existing tanks and vessels is quite simple, and no special equipment need be provided for this purpose. The usual practice is to install a wire-mesh separator at the top of a standard knock-out tank or process vessel to permit the collected liquid to flow back to its main body by simple gravity effect.

Units of this type can function effectively over a surprisingly wide range of flow velocities. The lower useful limit occurs when the gas velocity is no longer sufficient to force impingement on the metal surface, while an upper limit is set by eventual inability of the liquid to flow back against the high-velocity gas stream. For the system water-air 99% liquid particle removal has been reported at velocities ranging from 2 to 12 ft. per second—at atmospheric pressure.

Best efficiency

As in the case of centrifugal entrainment separators, the best efficiency is limited to liquid droplets exceeding 5 microns in diameter. Below 2 microns, wire-mesh screens are of only very limited effectiveness.

The use of such protective devices permits the use of higher linear gas velocities in disengagement chambers, and therefore makes the use of smaller equipment possible. According to the same report, a 6-ft. diameter knock-out drum to handle 2.5 mill. cu.ft. per day may be replaced by a 3-ft. drum with a knitted wire mesh entrainment separator, without resulting increase in liquid carry-over.

Most other types of impingement separators depend on the introduction of baffles into the gas stream. Different designs claim improved efficiency due to the particular flow pattern imparted to the fluid and to the method by which the coalesced liquid is removed from the collector in order to prevent re-entrainment. Improved operating efficiency is, however, quite commonly paid for by higher pressure drop and, sometimes, by greater investment costs.

Scrubbers.—An extension of the concept of separation by impingement is found in the use of scrubbers. Here, the presence of larger amounts of liquid adds to the coalescing action of simple impingement. In each design, the basis of design involves a method for obtaining fine distribution of the scrubbing medium—to permit intimate contact with the gas stream—provision of a contacting zone, and a suitable mode for separating the liquid from the gaseous stream.

Recent innovations

The use of packed towers in this function is of long standing. Recent innovations in this field include the use of venturi-type washers, followed by a settling chamber, wet cyclones—*i.e.*, centrifugal separation supplemented by scrubbing action—wet filters, and scrubbers with rotating elements.

Units of this type frequently employ water as scrubbing medium. Quite often, however, the entrained material itself may serve in this function. Illustrative is the use of sulphur scrubbing for the removal of sulphur droplets from the carrier gas in Claus plants, which serve for the production of elemental sulphur from sour gas streams.

Electrical entrainment separators.—Devices in this category are highly efficient, and they are the only widely usable type for the removal of very fine particles. However, electrostatic precipitators are bulky as well as costly—both in investment and operating expenditures. Almost universally, units of this type are preceded by other entrainment separators for the removal of the bulk of the liquid spray.

In separators of this type, the gas is passed through a strong electrical field. In the course of this passage, suspended particles are electrically charged. The path of fluid then approaches the oppositely charged electrode on which the charged particles will precipitate and coalesce. The liquid so accumulated is run off to a collector.

In the separation of entrained *liquid* particles, a single-stage precipitator is most commonly employed. In units of this design, the ionisation and collection functions are combined into a single chamber. A favoured design passes the gas stream through a multiplicity of vertical pipes which are electrically grounded and serve as collector element for the liquid. Mounted in the centre of each pipe is an energising electrode which is held at high negative electrical potential.

Depending on the number of stages employed, up to nearly 100% removal efficiency may be obtained, even with particles of only .1 microns diameter.

Ultrasonic precipitators.—Precipitators of this type cause the coalescence of very small particles (.5 to 10 microns) into larger droplets which can then be effectively removed by one of the more standard types of collectors.

A high-intensity ultrasonic field is generated inside the agglomerator by means of an ultrasonic syren. The resulting particle vibration causes collision and coalescence. A sound frequency is usually selected in the range 1-5 kcs. the actual selection depending on particle size distribution. The chosen frequency influences agglomeration efficiency significantly. It is desirable to operate in a range which will cause maximum vibration of the smaller particles while holding the movement of particles above 10-12 microns at a minimum.

The required hold-up time is inversely related to the sound pressure. In recommended practice, however, sound intensity of about 150 decibels is employed, and hold-up time in the agglomerator varies from a fraction of a second to several seconds.

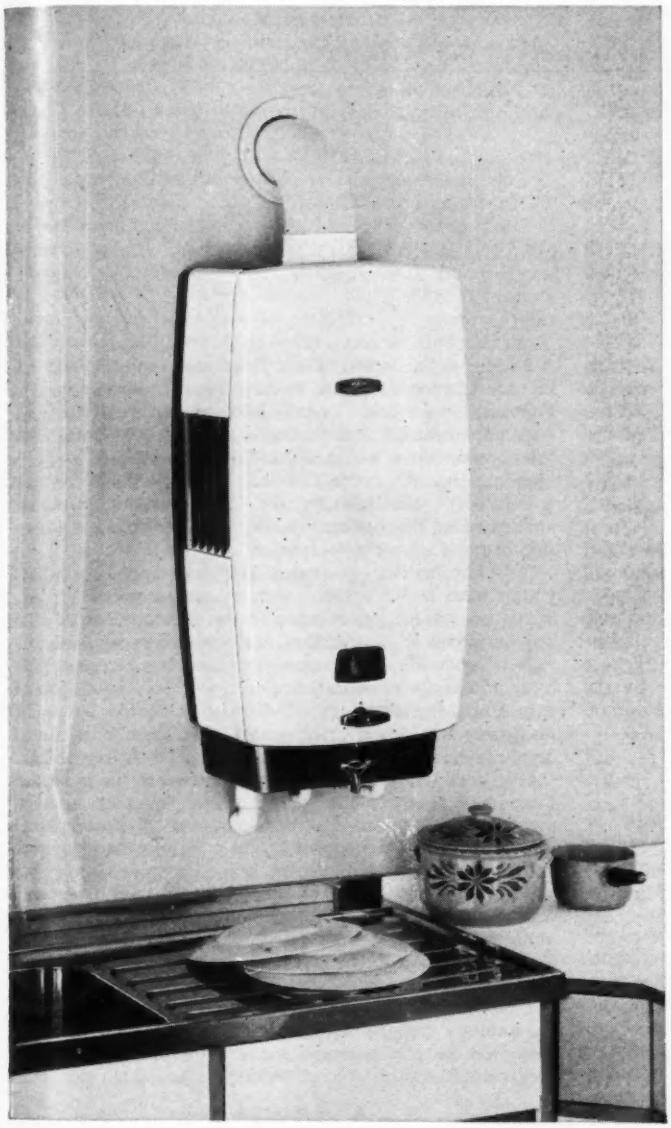
Concentration of entrained particles should be of the order of 1 grain per cu.ft. At lower concentrations, there is sufficient opportunity for coalescence, and it may actually become necessary to improve the situation by augmenting the quantity of entrained materials. At excessively high concentrations, however, energy consumption becomes too wasteful.

REVISED STANDARD

THE revised edition of B.S. 729 ('Revised British Standard specification for zinc coatings on iron and steel articles (B.S. 729:1961). Part 1. Hot dip galvanised coatings. Part 2. Sherardised coatings.') has been divided into two parts. The earlier standard specified visual examination and Preece copper sulphate dip continuity test for coatings. The revised standard introduces requirements, in Part 1, for weight of coating as well, giving three alternative methods of determination. Guidance is given on threaded work and an accepted procedure indicated.

In Part 2, visual examination and the copper sulphate dip test are alone specified. Again, recommendations for threaded work are included.

Copies of the standards may be obtained from the British Standards Institution, Sales Branch, 2, Park Street, London, W.1, Part 1 price 4s. each, Part 3 price 3s. each. (Postage will be charged extra to non-subscribers.)



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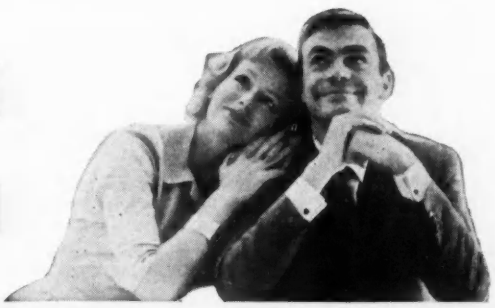

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Centenary annual general meeting of the Scottish Association of Gas Managers, 1961.

Presidential Address

By DAVID BEAVIS, A.M.I.MECH.E., M.I.GAS E., EDINBURGH

DURING the 100 years' existence of the Scottish Association of Gas Managers, of the many changes in the industry, not the least has been a continuous increase in the number and calibre of qualified staff required for the conduct of our business. The creation of large technical and commercial enterprises by the formation of the area boards and the advance and development of engineering and science has accelerated this process.

The responsibilities of, and the demands made upon Board members and senior officers of very large organisations require men of considerable intellectual stature who have been broadly trained and accustomed to decision and accountability while still young. Few men discharge without personal strain the onerous obligations of the highest offices with authority and competence who have not early in their careers made good progress on the ladder of promotion.

Open to question

With each year bringing even keener competition in the recruitment of first class men, it is open to question whether the industry is doing enough to attract young men with the potential qualities for leadership in the future.

The general pattern of sandwich or short period post graduate training leading to an appointment in the establishment from which further promotion depends upon applying for vacancies that arise from time to time may have its place; but it will not be attractive to men of the highest ability.

The time is ripe for the industry to set out to engage in addition a number of management trainees from the highest quality of graduates. These men would be carefully selected, trained and advanced through a series of chosen posts so that they emerged in early middle life as leaders of the industry.

The best possible training for potential top managers is the practical one of doing jobs for themselves at successive levels of difficulty and status. In being given the opportunity to hold down successive posts, these men can demonstrate whether they have the quality of leadership. The rewards offered to these young men must be commensurate with their potential ability and the quality of their degrees, and the opportunity before them must be clearly defined.

Too much reliance can be placed upon competitive interview for vacancies and upon internal schemes of education and training.

These have a most useful place and will provide the middle and part of the upper management ranks. But the time, if it is not already here, is near when every highly talented man will pass through university, graduating at honours level, and only those organisations with carefully designed management training schemes leading to top management appointments can hope to attract such graduates.

Failing action along those lines, the industry will not be able to provide future leaders from its own ranks and there will be a continued and increasing trend to make such appointments from outside. It is also for most careful consideration whether the limited periods for which appointments are made to board membership is not also a deterrent. Undoubtedly the industry would be more attractive to the brilliant young man if board membership were a career appointment.

It is not realistic to expect the professionally qualified young man to be content with minor technical appointments on production plants and the counterparts of such appointments in distribution and utilisation sections.

A number of such vacancies can be for a period filled by graduate professional engineers in the acquisition of experience, but there must also be a stable group of occupants of lower managerial and minor technical appointments who are at the limits of their potential.

It is clear from the vacancies advertised in the press that there is a general shortage of people for such appointments, and furthermore, where possession of a professional qualification was demanded in the past, more and more it is now recorded as desirable.

As general education develops, the educational system will retain young people at school, college or university until they have reached the limits within their compass. Less and less will the occasional craft apprentice with latent professional capability occur. But by reason of this trend in the general educational system, it is necessary for the industry to have attractive prospects to offer to young men who have a potential beyond the craft level, albeit they cannot aspire to a professional qualification.

A substantial case

There is a substantial case not only in our own profession but also in the engineering professions generally to reconsider the place and purpose of the National Certificate Schemes. These courses were at their inception primarily designed as an end in themselves. The use of such certificates and courses as a means towards exemption from the professional examinations of the engineering institutions was secondary.

During the years, however, the Higher National Certificate with endorsement subjects and day time release has more and more been distorted to the purpose of securing exemption from the examinations of the professional institutions.

To my mind, it will be accepted in the near future that entry to corporate membership of the professional institutions can only be by way of a university degree or recognised diploma or associateship in technology, and therefore a revised national certificate scheme should play an important part in its own right. It would set and preserve recognised qualifications for those intermediate appointments which call for a good standard of intelligence and applied technical knowledge.

There is scope too for more positive encouragement of the best of the young gasfitters who have achieved a high standard in the final examination in gasfitting to continue their studies with a view to passing the examinations in either gas technology (utilisation) or gas salesmanship and consumer service.

It is from this source that supervisors, instructors and technical representatives must come in the future, and it is vitally important that they should come forward in increasing numbers to provide the rising standards of extended service to our customers.

Formerly, a great deal of detailed work in guidance and advice to students was done by the District Education Committees of the Institution. With the advent of the area boards' full time education and training officers, more and more of this detailed work has devolved on the full time officers.

It is not possible to generalise on the value of the services now rendered by these committees, but one thing they all have in common, and that is a real value as a means of communication and as a stimulant to interest in education within the industry beyond the small coterie of professional educationalists and enthusiastic amateurs.

An informed group

Furthermore, the committee membership in so far as it is drawn from Senior and Junior Associations provides an interested and informed group from whom, apart from District representatives, the Institution might, in due course, be expected to make its nominations to the parent Education Committee.

The industry has so often complimented itself on good customer relations and efficient and unfailing service that it has encouraged within its ranks a complacency not always justified by the facts and voiced a satisfaction not invariably shared by its customers. Further, there is still within our calling a widespread but unreasoning belief in the security and permanence of the gas industry. A faith which is not based on logical foundations is perhaps the greatest danger to our prospects in years to come. The customer has no vested interest in the affairs of individual fuel industries, and so our continued participation in any sector of the fuel market, domestic, commercial or industrial, depends only upon how the composite attractions we can offer in terms of economy, effectiveness and service compare with other fuels.

Apart from considerations of the cost and quality of. and the service given by, our product, a new factor of rapidly growing significance is influencing the share of the fuel load we gain in new housing. The incorporation of comprehensive refined heat services in domestic dwellings integral with the design of the dwelling has created a situation in which a policy of freedom of choice has little relevance.

Very early stage

The two-part tariffs operated by the electricity and gas industries equally encourage the use of a single fuel for the major domestic purposes, and the choice is more and more made at a stage very early in the design of new buildings.

To meet this changed situation there has already been some strengthening of representation to local authorities and public boards, to architects and to builders. This effort must be sustained and increased if the break through, now made in a modest way by warm air units, is to be developed quickly.

Due to shortage of professional staffs, an increasing number of local authorities are inviting submission of multi-storey proposals from the major national contractors, without specifying in any way the fuels to be used for heat services.

Before the successful development of modern flue systems for such property, these contractors attracted by electrical under floor heating despite its inflexibility and other limitations, not only incorporated it in their standard designs but often included electricity for all domestic heat services.

The early general acceptance by local authorities of such designs and a reluctance by the contractors now to modify them on grounds of convenience, shortage of design staff, and cost of revising designs to incorporate modern flue systems, is losing many customers to the gas industry.

No strong preference

The prospective tenants of multi-storey flats have generally at the time of entry no strong preferences for either gas or electricity services. On the other hand, there is now available evidence of the high degree of customer satisfaction with all-gas domestic heat services incorporating warm air units in terms of cost and service.

These facts must be presented in a convincing manner to the principals of the national building and civil engineering contractors, so that the industry enjoys in future the share of this market to which it is entitled by virtue of the merit of the service the equipment now available can give.

Sharing the market between the refined fuels, in the absence of either industry introducing designs with overwhelming advantages, is very much in the interest of housing authorities and their tenants. The attractive connection charges and domestic tariffs offered by the two industries have in large measure been stimulated by competition, as have also the improvements in design, cost and efficiency of gas and electric equipment.

Absence of incentive

If either industry were to monopolise the domestic market, the absence of incentive could create a considerable danger of a slowing up in the progress of production, distribution and utilisation techniques. Domestic tariffs and connection charges might well be revised upwards to strengthen the position of the fuel concerned in competition with oil and solid fuel in the commercial and industrial markets.

The rapidly varying and still largely unpredictable climate of Great Britain favours gas for space heating because of the high heat input, flexibility of control and high efficiency of utilisation in terms of useful heat.

It is a great encouragement that sales of gas for all purposes in Great Britain increased by 3.1% in the year ended March 31, 1961, to the highest figure ever recorded. In Scotland, commercial and industrial business has been increasing steadily, and last year improvements of 4% and 9% respectively were recorded in these markets, but sales to the domestic market showed a decrease. The achievements by other area boards, however, demonstrated that this trend can be reversed by the establishment of the right kind of marketing organisation.

To this task the industry in Scotland has applied itself with considerable zest in the past few months, and there is no reason why there should not be in the future a continuous expansion in sales of gas to the domestic market. Increasing sales, coupled with the development of cheaper sources of gas supply, can lead the industry to a greater prosperity than it has ever known.

£2 MILL. PROFIT?—'NOT FAIR TO COMMERCIAL USERS,' HE SAYS

REFERENCE was made at the September meeting of the North Eastern Gas Consultative Council in Leeds to Sir Henry Jones' recent statement in Edinburgh that a profit of nearly £2 million was made by the British gas industry during the last financial year.

County Alderman Sir Harry Hardy said: 'It is our duty as representatives of the consumer to watch these things. I do not think it is fair to commercial users of gas, fighting for business in export markets, if the gas industry makes a profit of £2 mill. a year. It is not obliged to make a profit. What it should do is to serve consumers to the best possible advantage of industry in general and exports in particular.'

GAS PRICE

Sir Harry said that the price of gas was comparatively very high in Britain, and if the gas industry can make such a profit then the N.E.G.B. and others could have fetched the price of gas down instead of putting it up.

County Alderman H. Sutcliffe, Chairman of the Consultative Council, said that the profit represented only about 0.5% of turnover which would be regarded as very small by the business man.

County Alderman Mrs. J. Smith (Vice-Chairman) said: 'Sir Harry is once more lapsing into the idea that there are only two types of consumer—industrial and commercial.'

'EXPORTS ESSENTIAL'

Sir Harry replied that exports were essential to the life of the country, and that if industries were not competitive in price and were beaten in competition with industry abroad, then work and wages in the country would be affected and even the domestic gas consumers would be deeply concerned.

Sir Harry, referring earlier to a trading and output summary for the 16 weeks ending July 23, had said that commercial and industrial users were the backbone of the gas industry. 'In the future the use of gas as I see it, is going to be primarily commercial and industrial,' he said. 'The gas industry will have to go all out to cater for these two users.'

COOKER OUTPUT

There was a slight rise in the production of gas cookers during June to 48,500 compared with 47,900 in the previous month, reports the *Financial Times*. Electric cooker sales in July totalled 32,166 (20.1% up on July, 1960).

NEWS SUPPLEMENT

COAL EXPORT DRIVE

IN a drive to increase exports the National Coal Board will have the largest single exhibit at the All-British Trade Fair, Stockholm, May 18 to June 3, 1962.

A huge hollow pyramid of coal, coke and by-products outside the main exhibition hall is planned as the central feature of a 9,000 sq. ft. exhibit.

Inside the pyramid, according to N.C.B. plans, Swedish visitors will see miners working at a coal face with the latest British equipment. A giant symbolic figure of the British miner will stand outside the pyramid.

This is the first time the N.C.B. has exhibited at an overseas trade fair.

The private enterprise sector of the British coal and coke industry, including the British Coal Exporters' Federation and the British Coking Industry Association, will co-operate with the N.C.B. in making the export drive a success.

Last year exports to Sweden of coal, coke and briquettes increased by almost £1 million compared with 1959.

Grid pipeline will cross River Earn

WORK has started on the laying of the final section of the grid pipeline linking Perth with the Lurgi plant at Westfield, Fife. This 700-ft. section will cross the River Earn to link the sections already laid.

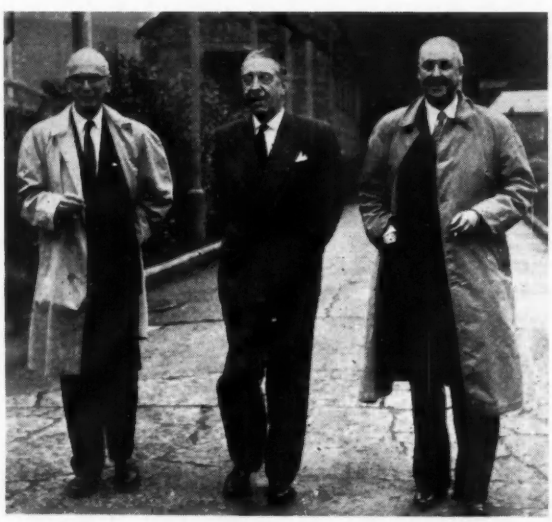
The preliminary work involves the preparation of a working site on the north bank of the river, where the pipes will be welded together and encased in concrete.

Laid double

The 8-in. diameter pipes will be laid double so that in the event of a leakage or blockage in the section under the water, gas supplies will not be interrupted.

An attachment similar to a snow plough will be fitted to the beginning of the pipeline so that a trench will be dug as the pipe is winched into the riverbed at a depth of not less than 3 ft.

MR. LEACH LOOKS AROUND



North Staffordshire was the first Division visited by Mr. C. H. Leach, new Chairman of the West Midlands Gas Board. He is seen (centre) at Divisional Headquarters, Etruria, with (left) Mr. W. R. Branson, Deputy Chairman, and (right) Mr. L. W. Johnson, Divisional General Manager.

PRESIDENT YIELDS TO CHAIRMAN

Scots managers end 100-year story as I.G.E. section opens

THE hundred-year story of the Scottish Association of Gas Managers has come to an end in Edinburgh—and the new story of the Scottish Section of the Institution of Gas Engineers has begun. Presiding over the centenary annual general meeting of the former was Mr. David Beavis, Area Manager, Scottish Gas Board, and last of a distinguished line of presidents of the Scottish Association; taking office as first Chairman of the new I.G.E. Section was Mr. D. L. Dickson, Dumfries.

The proceedings were held in the Music Hall, Edinburgh, Mr. Beavis presiding. There was a civic welcome from Senior Bailie R. McLaughlin.

Sir Henry Jones, Chairman of the Gas Council, told the meeting that a big task for the Gas Council and area boards during the past 12 months had been to present evidence to the Select Committee on Nationalised Industries.

He said: 'I was most encouraged by the report of the Committee, which recognises the great opportunities before the industry and to a large extent confirms our ideas of how they may be seized. I cannot say to-day what, if any, observations the Council will want to make on the report, but it will be valuable in many ways for a long time to come.

'Will reward study'

'I only regret that it was not possible to publish the evidence and appendices simultaneously with the report. When published they will well reward study by all who are interested in the past performance and future prospects of the industry.'

During its most recent financial year, ending on March 31, he continued, the industry sold a record amount of gas and earned a surplus of about £2 million. It was not wise to forecast the results for the current year—temperatures and trading conditions were uncertain—but he would be very disappointed if a surplus was not earned again.

Forward-looking

Sir Henry extended the Council's good wishes for the future to 'this hundred years' old, but vigorous and forward looking Association, so soon to be a Section of the Institution.'

Short speeches were also made by Mr. Sydney Smith, Chairman of the Scottish Gas Board; Mr. T. C. Battersby, President, and Mr. A. G. Higgins, Secretary of the Institution of Gas Engineers; and Mr. J. A. Beckett, Under Secretary, Ministry of Power.

Mr. Beckett said that he was very optimistic about the future of the gas industry. He described the Select Committee report as a 'remarkable achievement,' considering that it was produced—in a highly readable form and giving a most clear insight into the affairs of the gas industry—only four weeks after the last evidence was taken.

He said: 'That report is going to give us quite a lot of interesting work this autumn.'

Presenting the annual report and statement of accounts, Mr. Beavis said that it had been clear to the Council that further measures of economy were necessary in order to restore entirely the financial position and to enable the future Scottish Section of the Institution of Gas Engineers to determine its subscription at a level that would encourage the widest membership without prejudice to the junior gas associations.

Accordingly, it had been decided that the papers for the meeting, excepting the William Young Memorial Lecture, for which an independent fund existed, should not be printed.

Last time

Further, transactions would be printed in this centenary year for the last time. The Secretary, in recognition of the changed financial circumstances, had generously submitted and the Council had accepted that continuation of the present honorarium could no longer be expected when the Scottish Section was formed.

By all these measures it was hoped that the Scottish Section might find it possible to determine the future subscription at not more than £2 per annum, and that the subscription for retired members be fixed at one-half, with powers of further remission if special circumstances so required.

Continued membership of the Section after retirement would only be open to members continuing in membership of the Institution of Gas Engineers. Existing honorary and life members of the Association could either, if in membership of the Institution, join the Section as retired members or otherwise they would be placed on a visitors' list.

Benevolent fund

The latter concession would be confined to existing life members.

Mr. Beavis added: 'It has also been decided by the Council that the Benevolent Fund shall be transferred to the Institution of Gas Engineers Benevolent Fund, with due safeguards for all who might in future have had claims on the Association's fund.'

He stressed that future financial well-being must depend almost entirely upon the support given to the Section, and he asked all members to assist by encouraging all in Scotland who would be qualified for membership of the Section to join.

On the motion of Mr. H. Milne, seconded by Mr. C. Mitchell, the report and accounts were adopted.

Certificates were presented to Mr. A. Robertson, Galashiels, and Mr. W. B. Townsend, Glasgow, who had been successful in the membership examination of the I.G.E. Mr. Beavis added that Mr. Hanford, now of Southampton, and Mr.

HIS EYE TO THE FUTURE

STATISTICIAN to the South Eastern Gas Board, Mr. Maurice R. Bone, read a paper to the centenary A.G.M. of the Scottish Association of Gas Managers in Edinburgh entitled 'An eye to the future.'

His own immediate future, on which he was excusably keeping an eye, included wedding celebrations. He was being married two days afterwards.

He took away with him from Edinburgh not only plaudits for his paper but the good wishes of all the Scottish gas managers for happiness in the wider sphere.

The paper with discussion will be carried in a later issue of 'Gas Journal'

Mr. Bone, who is an Honours graduate in Economics of the London School of Economics, has special responsibilities in the South Eastern Gas Board for market research and tariff designs.

He is directly responsible to Mr. V. Stanton, Board member and commercial manager and chairman of the Gas Council's Commercial Managers' Committee.

Mr. Bone commenced his post-graduate work with four years in Edinburgh with Ferranti Ltd.

He has now been some seven years with the South Eastern Gas Board.

Members of the Council of the Scottish Association of Gas Managers. Back row (left to right): Mr. T. S. Ricketts, Mr. Johnston, Mr. G. E. H. Keillor, Mr. A. McFadyen, Mr. K. F. Cairns, and Mr. G. Blackhurst. Front row (left to right): Mr. D. Elgin, Mr. D. L. Dickson, Mr. D. Beavis (President), Mr. J. H. Fulton and Mr. W. Kirk.

Campbell, now of Nottingham, had also been successful candidates.

Mr. Beavis then gave his presidential address, an abstract of which appears elsewhere in this issue.

Mr. Beavis was thanked by Mr. Dickson, seconded by Mr. J. Fulton.

Dr. J. Burns, Deputy Chairman of the North Thames Gas Board, delivering the William Young Memorial Lecture, 'William Young in practice and in theory,' said that if Young were alive to-day he would look at the gas industry with especially critical eyes and would find there a peculiar mixture of the old and outmoded with the new and efficient and lots in between.

Great upheaval

He would recognise the great upheaval which the industry had undergone with the emergence of a form and framework of great potential.

Young would also recognise to the eternal credit of the industry that if it ever could be accused of lethargy in its technical affairs, that lethargy disappeared in the middle fifties and the industry set to with a will to meet the new set of conditions and find new raw materials to preserve its livelihood.

He would recognise that in a few short years the gas industry had overcome the dangers of coal shortage and high prices and had opened out before itself a range of raw materials which should give it much greater freedom of action in the future.

He would be proud

William Young would be proud that his own native Scotland had been the first area successfully to establish a high-pressure gasification process and plant for the conversion of native coal to gas.

Mr. S. K. Patterson proposed a vote of thanks to the lecturer; Mr. T. S. Ricketts seconded.

A film, 'The Murton coking plant,' produced jointly by the National Coal Board and the Woodall-Duckham Construction Company, was shown. Mr. Beavis explained that an increasing proportion of gas supplies in Scotland were being derived from coke oven sources and last year represented 20% of the total quantity distributed.

The Scottish Gas Board, however, did not operate any coke oven plants of its own and many of the members had no opportunity to be familiar with modern coking practice. This would to some extent be corrected by the film.

Mr. H. Millner, Carbonising Engineer of the Durham Division of the National Coal Board, introduced the film, which was commented on by Mr. W. N. Baird after its showing, a reply being made by Mr. C. Kuttner, Deputy Chief Operating Engineer of the Woodall-Duckham Company.

The urgent need for the industry to ensure that the steady decline over the past decade in gas sold to domestic customers was permanently reversed was stressed by Mr. Maurice R. Bone, South Eastern Gas Board, in a paper entitled 'An eye to the future.'

Mr. D. D. Melvin (left) chats with Mr. D. Colvin and Mr. E. M. Edwards, Deputy Chairman, Wales Gas Board.

The proceedings concluded with the installation of Mr. David Dickson as the first Chairman of the Scottish Section of the Institution of Gas Engineers.

The closer ties of the future were welcomed by Mr. T. C. Battersby, president of the I.G.E., when he proposed the toast of the Scottish Association at the centenary luncheon, at which the Chairman and members of the Scottish Gas Board were hosts.

Replying, Mr. Beavis said that while the change would establish them on a basis much more relevant to the industry to-day, he hoped that all of the best traditions built up over a hundred years by the Scottish Association would be continued by the new Section.

They hoped that all professional engineers in the industry in Scotland would be encouraged to join.

It was also planned to extend the present programme by having two half-day meetings during the course of the year in addition to the annual general meeting. These half-day meetings would be held in the Divisions other than that in which it was planned to hold the annual general meeting, and having regard to their far-flung 30,000 square miles, attendance would be confined largely to those within reasonable travelling distance.

'This will give opportunity to our own members to present further papers—a matter in which we have sometimes been remiss—and also give opportunity for representation and local discussion of outstanding contributions to meetings of the Institution of Gas Engineers.'

Replying to the toast of the guests, proposed by Mr. Sydney Smith, Sir Henry Jones said that certain parts of Scotland presented problems of rehousing as severe as any to be found in Britain. The gas industry was exceptionally well placed to provide efficient heat service in the home at costs to the consumer which conformed well to Scottish ideas of true economy.

By no means all housing authorities in Scotland had given the Scottish Gas Board the opportunity of supplying the occupants of their new dwellings. But a new gas industry was growing before their very eyes, and he hoped that no preconceived and old-fashioned ideas would now prevent the installation of a gas supply in every dwelling within reach.

In the evening a civic reception was given by the Lord Provost.

Golf and bowls

The autumn golf competition was played over the Bruntsfield Links Golfing Society's course, Barnton, Edinburgh.

Results were:

Challenge bowl and replica, J. R. Hendry 85, 13, 72.

Section I: First prize, T. Robertson 78, 4, 74; second prize, W. P. Rae 88, 11, 77; third prize, H. A. Aitken (best inward half) 90, 12, 78.

Section II: First prize, J. E. Clark 89, 16, 73; second prize, D. Patterson 92, 18, 74; third prize, A. M. Jackson 95, 18, 77.

Winson Scott Cup/Veterans' Trophy, S. Meunier 87, 12, 75.

Visitors: First prize, F. T. Cooper 98, 23, 75; second prize, W. T. Wright 84, 7, 77; third prize, G. McTaggert 101, 22, 79.

Mr. W. P. Rae was elected Captain for the ensuing year.

The annual competition of the Scottish Association of Gas Managers' Bowling Club was held at the Granton Bowling Green, Edinburgh, and was attended by a large number of members and visitors, including Mr. Sydney Smith, Chairman of the Scottish Gas Board, and Mrs. Smith.

The bowling trophies were won by the following rinks:—

Winning rink: Skip, D. Moore, Glasgow. 1, W. Phairn, Lanark. 2, E. Shiell, Galashiels. 3, A. McNeill, Annan. 14 shots up.

Runners up: Skip, J. G. Rutherforth, Edinburgh. 1, T. Scott, Langholm. 2, J. McPherson, Nairn. 3, D. C. Brown, Maybole. 8 shots up.

The prizes were presented by Mrs. Beavis.

At the annual general meeting held in the clubhouse afterwards, Mr. J. McEwan, Edinburgh, was elected President for the year 1962.

At the civic reception: Mrs. T. C. Battersby; Mr. D. Beavis, President S.A.G.M.; Mrs. Beavis; Senior Baillie McLachlan, who deputised for the Lord Provost; Mrs. McLachlan; Mr. Sydney Smith, chairman Sc.G.B. Mrs. Smith and Mr. T. C. Battersby, president of the Institution of Gas Engineers.

SCOTTISH BOARD CHAIRMAN SAYS: 'FUTURE IS MUCH MORE ENCOURAGING'

A 'MUCH more encouraging' future for the gas industry in Scotland—aided by, it was revealed, a 'very substantial surplus' in the last financial year—has been forecast by Mr. Sydney Smith, Chairman of the Scottish Gas Board. He was reporting on recent Scottish developments when addressing the centenary annual general meeting of the Scottish Association of Gas Managers in Edinburgh.

Mr. Smith recalled that at the Association's meeting last year he referred to impending changes in the Board's administrative organisation and to other forthcoming events.

These things were now matters of fact. The first stage of Westfield works began production on December 27, 1960, and apart from a few teething troubles, which were to be expected with such a revolutionary type of plant, the works had settled down without any major operational disturbance. Second-stage construction was going ahead on schedule, and they expected to have this in operation within the next three months.

Rapid progress

Work on the super-grid was proceeding rapidly, and he was able to report that the section from the Tay Bridge to Dundee was virtually completed and that the crossing of the bridge itself was nearly half finished.

All that had been a major construction job, which presented many unusual problems. The section from Westfield to the bridge had been in operation for some time.

Work was also proceeding on a supply main between Grangemouth oil refinery and Granton works, Edinburgh, and two large reforming plants—of 18 mill. cu. ft. a day total capacity—were soon to be installed at Granton.

These would deal with a supply of 25 mill. therms a year of refinery gas, which the Board had contracted to take for a minimum period of 15 years. This supply would become available within the next 12 months.

The quantity involved was roughly equivalent to one-eighth of the total gas demand in Scotland.

In conjunction with the new source of supply, Granton works was to be connected through Falkirk to the supergrid nearly two years ahead of the original programme.

At a later stage they hoped to be able to connect the super-grid to the natural gas well at Cousland, where the prospects of underground storage appeared to be encouraging.

'All this means, of course, that we shall have a closely integrated system of supply throughout the industrial belt of Scotland, in which more than 90% of our total gas demand exists.

'We have already been able to close down to date 111 of the 195 works taken over after vesting date—after providing bulk supplies of gas from more economic units. Some 84 works are now in operation, and these we plan eventually to reduce to 47.'

The functional form of organisation

in the Scottish Gas Board, which came into operation on October 1, 1960, had settled down very well and already substantial benefits were apparent.

In production, for example, the average cost of gas into holder had been significantly reduced, despite the fact that they had had to face a substantial increase in the price of coal and in wages and salaries.

He was quite sure that further substantial economies could be obtained in this and in many other directions. Recently they went a stage further by bringing into effect the initial stages of a plan to develop on an Area scale a specialist sales force in the domestic market.

This had got away to a good start. It was designed, through increased sales of appliances, to halt the downward trend of domestic gas sales and progressively to reverse this into a modest increase of 2% each year.

Industrial demand was increasing at an average rate annually of more than 9%, and sales in the commercial sector were showing an increase of about half this rate. Overall their total sales of gas to date were more than 1% up on the corresponding period in 1960.

'I said at this meeting last year that we were passing through a very difficult period, but that I believed the worst was behind us. I am still of the same opinion, although the Chancellor's "little budget" will certainly do nothing to help us.

'During the past five years we have had to face together, and to overcome, one difficulty after another. We are again facing a challenge, but we are now much better organised and equipped to meet it.

'Our general situation is considerably improved, and I am sure you will all be glad to learn that, although for obvious reasons I am unable to quote a figure, the Board's Accounts for the financial year ended on March 31 show a very substantial surplus.

'In other words, the future is much more encouraging—provided that there is no letting-up in our determination to put Scottish gas into the position which it should occupy in the Scottish economy. We are making steady progress, and the Board is most grateful to you for all your efforts.'

The President, Mr. D. Beavis, with Mr. A. T. Herd, Scottish Board Secretary, and Mr. W. Kirk, Secretary, Scottish Association of Gas Managers.

PERSONAL NOTES

MR. A. H. ETHERIDGE, manager of the Keith Blackman Gas Sales Department, is retiring after 48 years' service. Responsible for the sales of the Company's range of industrial gas-burning and controlling equipment since 1944, Mr. Etheridge was previously an outside representative. He dealt additionally with high pressure gas lighting, and also fans and blowers as applied to industrial gas applications. His successor is MR. A. C. T. WILSON who joined the Company in 1939 in the Gas Department drawing office and who became a gas sales representative in 1950.

MR. B. C. MORTON has resigned as deputy chairman and managing director of Robert Dempster & Sons Ltd., and MR. S. STANSFIELD, the deputy chairman and managing director of Oxley Engineering Co. Ltd., has been appointed in his place. Mr. Stansfield has also been elected to the Board of De Vere Holdings Ltd. The Board of De Vere Holdings Ltd. has confirmed that Robert Dempster & Sons Ltd. and Oxley Engineering Co. Ltd., while collaborating closely in technical matters, will continue to trade as separate companies.

MR. E. H. DODIMEAD, Editor of the North Thames Gas Board 'Thames Gas Magazine,' has been awarded the Emblème d'Honneur of the Federation of European Industrial Editors' Associations. The award has been made for outstanding services to industrial journalism during his term of office as chairman of the British Association of Industrial Editors.

MR. N. READMAN has become Chairman of Consolidated Pneumatic Tool Company. He is succeeded as Managing Director by MR. S. H. IRELAND.

MR. J. W. BROWN has resigned from the Board of C. and W. Walker.

COMING EVENTS

October 12.—I.G.E., EASTERN SECTION: Visit to Texas Instruments Ltd., Bedford. 10.45 a.m.

October 19.—MIDLAND JUNIORS: Day visit to W. H. Allen, Sons and Company, Bedford.

October 21. — MANCHESTER DISTRICT JUNIORS: Gas in Modern Industry Exhibition, City Hall, Manchester. Presidential Address.

October 21. — NORTHERN JUNIORS: Stockton showroom. 'Getting Warmer,' by J. Bell. 2.30 p.m.

October 24.—EASTERN JUNIORS: Visit to Vauxhall Motors, Luton.

COMBUSTION ENGINEERING CONFERENCE

THE Combustion Engineering Association will meet at the Northern Exhibition of Fuel and Power for Industry, Queens Hall, Leeds, on October 19 for their 1961 conference.

The conference will consider 'Grit and Dust from Small Boiler Plants,' and discuss what arresting equipment is available, the applications of each type and the economics involved.

It will then examine the seventh progress report of the National Industrial Fuel Efficiency Service, and discuss the savings, improvements in factory processes and the increased output which can derive from better utilisation of heat and steam.

OBITUARY

DR. L. C. HILL, general secretary of the National and Local Government Officers' Association from 1909 to 1943, has died in hospital at the age of 78. In 1909, Mr. Hill gave up his post in local government to become NALGO's first full-time general secretary. His interests were centred in NALGO, but he was also closely concerned with the formation of the Royal Institute of Public Administration, and of the Citizens Advice Bureaux. He took a keen interest in the International Union of Local Authorities, to which he was honorary director-general during the war.

B.H.D. ENGINEERS LIMITED

IMPROVED ORDER BOOK

MR. F. BRIAN HOLMES' REVIEW

THE 13th Annual General Meeting of B.H.D. Engineers Limited was held on September 22 at 4, Whitehall Court, London, S.W.1, Mr. F. Brian Holmes, M.I.GAS E. (the chairman), presiding.

The following is his report which has been circulated to the shareholders:

The surplus on trading for the year is £563,869 compared with £626,824 for the year to March 31, 1960. Depreciation at £181,110 is up rather more than £40,000 over the previous year and reflects the fairly substantial additions to our Fixed Assets which have taken place during the period under review.

After charging this and other expenses the profit before taxation is £314,512, a drop of £103,374.

Taxation at £186,219 absorbs more than 60% of the profits; the charge for Profits Tax reflects the increase from 10% to 12½% which took place as a result of the April 1960 Budget. The increase in the 1961 Budget from 12½% to 15% will first be reflected in the accounts to March, 1962.

After providing for the interest of Minority Shareholders, the profit for the year after charging taxation amounts to £120,898 compared with £203,199 in the previous year.

Despite the lower profit on trading, but in view of the much improved position of the Group's order book, your Directors have decided to recommend an unchanged final dividend of 12½% plus a 5% special bonus, making, with the interim dividend already paid, the same total distribution of 22½% as last year.

The sum of £69,416 has been carried to General Reserve by our Subsidiary Companies, leaving a balance of £280,019 to be carried forward to next year's account.

Balance sheet features

Turning to the Consolidated Balance Sheet, the total of Capital and Reserves has increased by £65,473 to £2,181,451. On the Assets side, Fixed Assets have increased by £110,355 and have now topped the million mark at £1,014,003.

Our Stock, Work in Progress and Debtors all show substantial increases and this is reflected in our Bank position.

In the Balance Sheet of B.H.D. Engineers Limited, the small increase in the issued share capital reflects the purchase of Minority Shares in a Subsidiary, as noted in last year's Balance Sheet.

The increase in Shares in Subsidiary Companies arises through the purchase for cash of the issued Share Capital of Constructional Engineering Co. Ltd., and also through the acquisition of the Shares of a sub-Subsidiary Company from two of the Subsidiaries, this being offset by a reduction in the item 'Advances to Subsidiary Companies.'

Trading conditions

I have drawn your attention over the past few years to the difficulties facing those companies in the Group which specialise in supplying capital equipment to the gas, coal and steel industries, due to changing requirements in these industries.

The year's results reflect the reduced demand by those who used to be our main customers and the resulting underemployment of our productive capacity, particularly during the early part of the year, and finally intense competition for such work as was being placed, leaving extremely narrow profit margins—which at times barely covered the overhead charges.

To meet these conditions of changing demand, your Directors have already extended the range of manufacture which the Group can offer, and are always on the look out for further suitable new products for still wider diversification.

The result of this policy is shown in the greatly improved state of the order book; the value of uncompleted orders in the Group being £9½ mill. at the end of July last, compared with £6 mill. at the same time last year.

Despite the recent recession in the motor industry, British Furnaces Ltd. and the Holset Engineering Co. Ltd. increased both their sales and turnover to a new level. The new and increased office, technical and manufacturing facilities provided for these Companies over the last two years have proved fully justified and in fact, without them they could not have met their commitments.

It is unfortunate that the continued improvement by these two Companies have been more than offset by the less favourable trading conditions of other Subsidiaries.

I mentioned in last year's Statement the acquisition of Ball Couplings Ltd., reporting that we had a number of these couplings in use. Experience has proved them in every way satisfactory, and planning for production is now in hand and may eventually call for the further addition of production capacity for the Holset Engineering Co. Ltd.

Our Canadian Subsidiary—the Bryan Donkin Co. (Canada) Ltd., has not progressed as we had hoped. After making steady and encouraging headway in building up a gas regulator business, the Company has recently met with severe American competition which has completely altered the outlook.

In view of this, Mr. S. Farrer (Managing Director of The Bryan Donkin Co. Ltd.) visited Canada recently and instituted an investigation which we hope will enable us to take a decision before the end of the year, on how best to deal with this problem.

New acquisition

In the early part of the year, negotiations were completed by which we purchased the capital of Constructional Engineering Co. Ltd., Birmingham. This Company, specialising in the supply of plant to the foundry trade, fits well into the broad framework of the Group's activities and will provide a valuable range of new products.

Your Directors are satisfied that the purchase of this Company, which was negotiated on satisfactory terms, will in due course prove a real asset to the Group.

Competition remains very keen and profit margins are low; nevertheless, the increase in the number and volume of orders on our books ensures the economic utilisation of the productive capacity of our works, a welcome development after the period of under-employment last year.

Subject to unforeseen circumstances arising which are outside their control, your Directors are satisfied that the overall position of the Group is more promising than it has been in the recent past, and that in due course results should show an improvement on those for the year under review.

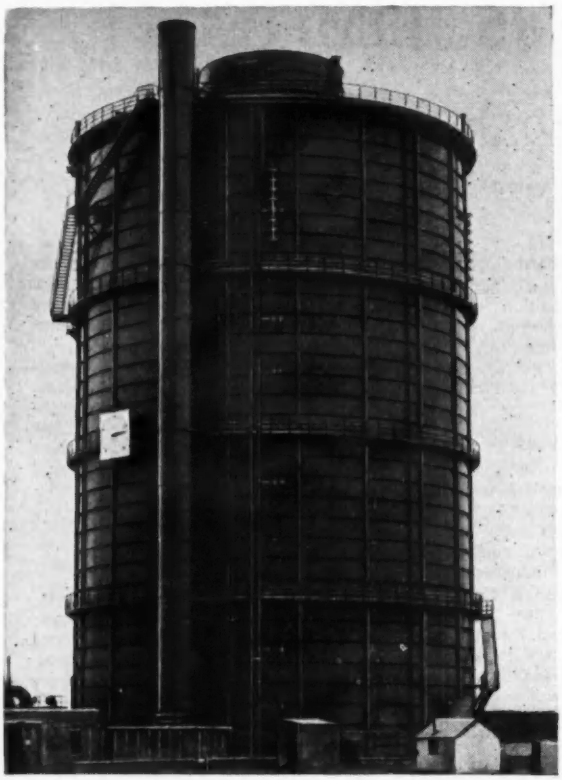
Directorate and Staff

During the year, Mr. F. H. Wilkinson (Managing Director of George Waller & Son, Ltd.) was invited to join the parent Board.

In conclusion, may I, on behalf of my colleagues and myself extend to the executives, to all members of the staff and to every employee of each of the companies which form the B.H.D. Group, our sincere thanks for their efforts during the past year.

The report and accounts were adopted and the dividend recommendation was approved.

The retiring directors, Mr. F. H. Wilkinson, Mr. P. Rushworth and Mr. A. J. M. Henshaw, M.A., were re-elected.



THE HORSELEY GROUP

For many years Horseley Bridge and Thomas Piggott Ltd. have fabricated gasholders of every description for both the home and overseas markets.

A further member of the group, Carter Horseley (Engineers) Ltd., specialise in the

Erections and Dismantling of Steelwork
Fixing of all types of industrial sheeting
Installation of heavy machinery
Repair and maintenance to industrial buildings

The illustration shows a one million cubic feet Klonne type Dry Seal holder recently supplied to the Steel Company of Wales Abbey Works, and a similar holder of five million cubic feet capacity is now in course of erection for that customer.

HORSELEY GROUP

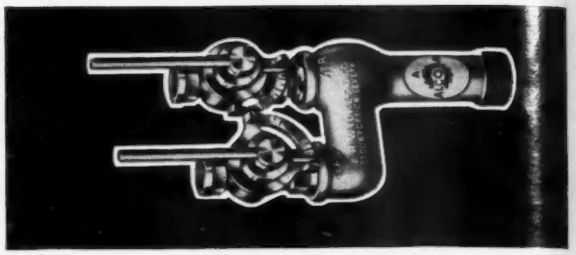
HORSELEY BRIDGE & THOMAS PIGGOTT LTD., TIPTON, STAFFS.

CARTER-HORSELEY (ENGINEERS) LTD., TIPTON, LONDON, CRAWLEY, SHEFFIELD, NEWCASTLE. LIVERPOOL & CARDIFF

HORSELEY-PIGGOTT (WATER ENGINEERS) LTD., TIPTON, STAFFS.

MECHANS LTD., GLASGOW.

"WILKES" . . .



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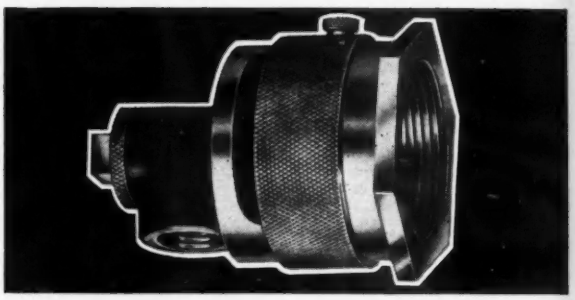
Suitable for all types of high temperature furnace work, the patent B.2015 Mixers ensure a perfect mixture of gas and air by virtue of a perforated venturi throat causing complete disturbance of the two gas streams. They can be fitted in any position, on any shape of nozzle and once fitted ensure maximum efficiency and trouble free service.



. . . B.3007 GAS & AIR INJECTOR

The "Wilkes" B.3007 variable gas consumption injector ensures that the maximum gas flow is obtained by means of an external locking device and the gas connection joining at right angles to the outlets ensures minimum restriction to the gas flow.

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